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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,202	02/24/2004	Makoto Muramatsu	249226US3	9262

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EXAMINER	
LAMB, BRENDA A	

ART UNIT	PAPER NUMBER
1734	

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/784,202	MURAMATSU ET AL.	
	Examiner	Art Unit	
	Brenda A. Lamb	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) *11 and 23-31* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5,7,10,12,16 and 22* is/are rejected.

7)☒ Claim(s) *3,4,6,8,9,13-15 and 17-21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/24/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Applicant's election without traverse of apparatus directed to the specie of a plurality of projections or point to point contact between a nozzle and nozzle holder formed in the wall of a through-hole of the nozzle holder in the reply filed on 10/14/2005 is acknowledged.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2,5,7,10,12,16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 2001-038272.

Japan '272 teaches the design of a process liquid supply nozzle, comprising a substantially tubular nozzle 134 provided with a discharge port 133 for discharging a process liquid, a nozzle holder which includes attachment components 135 provided with a through-hole into which the nozzle can be inserted, and a free space formed

between an inner circumferential surface of the nozzle holder and an outer circumferential surface of the nozzle, at least a prescribed cleaning liquid being supplied into the free space, such that the process liquid is discharged from the discharge port of the nozzle under the state that the discharge port of the nozzle protrudes downward from the through-hole, and the nozzle is cleaned with a cleaning liquid under the state that the nozzle is housed in the nozzle holder. Japan '272 fails to teach the nozzle holder is substantially bowl-shaped. However, it would have been obvious matter of design to provide the Japan '272 nozzle holder with a substantially bowl shape since such a modification would have involved a mere shape of a component (see In re Dailey, 149 USPQ 47). Further, functional recitation that the nozzle holder and the nozzle are relatively movable in a vertical direction has not been given patentable weight because it is narrative in form. In order to be given patentable weight, functional recitation must be expressed as a "means" for performing the specified function, as set forth in 35 USC 112, 6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional recitation. In re Fuller, 1929 C.D. 172; 388 O.G. 279. Thus claim 1 is obvious over the above cited references. With respect to claim 2, it would have been obvious given the modifications of the Japan '272 nozzle as discussed above that the free space between the inner circumferential surface of the nozzle holder and an outer circumferential surface of the nozzle is capable of accepting gas in combination with the liquid from its supply means since the free space defined by walls of the above cited structural elements is capable of accepting and containing a variety of fluids therein including a liquid or a combination of

gas and liquid. With respect to claims 5 and 10, Japan '272 teaches the design of a process liquid supply nozzle, comprising a substantially tubular nozzle 134 provided with a discharge port 133 for discharging a process liquid, a nozzle holder which includes attachment components 135 provided with a through-hole into which the nozzle can be inserted, and a free space formed between an inner circumferential surface of the nozzle holder and an outer circumferential surface of the nozzle, at least a prescribed cleaning liquid being supplied into the free space, such that the process liquid is discharged from the discharge port of the nozzle under the state that the discharge port of the nozzle protrudes downward from the through-hole, and the nozzle is cleaned with a cleaning liquid under the state that the nozzle is housed in the nozzle holder. Japan '272 shows that the nozzle is arranged to extend through the central portion of the hole portion. Japan '272 shows a wall of the hole portion of the nozzle holder having attachment points 135 which provide multiple contact points areas between the outer circumferential surface of the nozzle and the hole portion as shown in Figure 8. Japan '272 fails to teach the nozzle holder is substantially bowl-shaped. However, it would have been obvious matter of design to provide the Japan '272 nozzle holder with a substantially bowl shape since such a modification would have involved a mere shape of a component (see In re Dailey, 149 USPQ 47). With respect to claim 7, functional recitation that the at least one of the nozzle and nozzle holder are rotatable by a prescribed angle has not been given patentable weight because it is narrative in form. In order to be given patentable weight, functional recitation must be expressed as a "means" for performing the specified function, as set forth in 35 USC 112, 6th

paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional recitation. In re Fuller, 1929 C.D. 172; 388 O.G. 279. With respect to claim 16, the same rejection applied to claim 5 is applied here. Japan '272 teaches process liquid supply mechanism for supplying the process liquid into the nozzle; a cleaning liquid supply mechanism for supplying a prescribed cleaning liquid into the free space for cleaning the nozzle. With respect to claim 22, Japan '272 teaches the design of a process liquid supply nozzle, comprising a substantially tubular nozzle 134 provided with a discharge port 133 for discharging a process liquid, a nozzle holder which includes attachment components 135 provided with a through-hole into which the nozzle can be inserted, and a free space formed between an inner circumferential surface of the nozzle holder and an outer circumferential surface of the nozzle, at least a prescribed cleaning liquid being supplied into the free space, such that the process liquid is discharged from the discharge port of the nozzle under the state that the discharge port of the nozzle protrudes downward from the through-hole, and the nozzle is cleaned with a cleaning liquid under the state that the nozzle is housed in the nozzle holder. Japan '272 shows that the nozzle is arranged to extend through the central portion of the hole portion. Japan '272 shows a wall of the hole portion of the nozzle holder having attachment points 135 which provide multiple contact points areas between the outer circumferential surface of the nozzle and the hole portion as shown in Figure 8. Japan '272 teaches process liquid supply mechanism for supplying the process liquid into the nozzle; a cleaning liquid supply mechanism for supplying a prescribed cleaning liquid into the free space for cleaning the nozzle. Japan '272 fails to

teach the nozzle holder is substantially bowl-shaped. However, it would have been obvious matter of design to provide the Japan '272 nozzle holder with a substantially bowl shape since such a modification would have involved a mere shape of a component (see In re Dailey, 149 USPQ 47).

Claims 1-2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 2001-038272 in view of Tateyama et al.

Japan '272 teaches the design of a process liquid supply nozzle, comprising a substantially tubular nozzle 134 provided with a discharge port 133 for discharging a process liquid, a nozzle holder which includes attachment components 135 provided with a through-hole into which the nozzle can be inserted, and a free space formed between an inner circumferential surface of the nozzle holder and an outer circumferential surface of the nozzle, at least a prescribed cleaning liquid being supplied into the free space, such that the process liquid is discharged from the discharge port of the nozzle under the state that the discharge port of the nozzle protrudes downward from the through-hole, and the nozzle is cleaned with a cleaning liquid under the state that the nozzle is housed in the nozzle holder. Japan '272 fails to teach the nozzle holder is substantially bowl-shaped. However, it would have been obvious matter of design to provide the Japan '272 nozzle holder with a substantially bowl shape since such a modification would have involved a mere shape of a component (see In re Dailey, 149 USPQ 47). Further, functional recitation that the nozzle holder and the nozzle are relatively movable in a vertical direction has not been given patentable weight because it is narrative in form. In order to be given patentable weight, functional

recitation must be expressed as a "means" for performing the specified function, as set forth in 35 USC 112, 6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional recitation. In re Fuller, 1929 C.D. 172; 388 O.G. 279. In any event, it would have been obvious to modify the Japan '272 nozzle by substituting its support arm with another support arm movable in XYZ directions which includes movement in the vertical direction such as shown by Tateyama et al for the obvious advantage of greater control of the process.
Thus claim 1 is obvious over the above cited references. With respect to claim 2, it would have been obvious given the modifications of the Japan '272 nozzle as discussed above that the free space between the inner circumferential surface of the nozzle holder and an outer circumferential surface of the nozzle is capable of accepting gas in combination with the liquid from its supply means since the free space defined by walls of the above cited structural elements is capable of accepting and containing a variety of fluids therein including a liquid or a combination of gas and liquid. With respect to claim 12, the same rejection applied to claim 1 is applied here. Japan '272 teaches process liquid supply mechanism for supplying the process liquid into the nozzle; a cleaning liquid supply mechanism for supplying a prescribed cleaning liquid into the free space for cleaning the nozzle. Japan '272 teaches the nozzle is cleaned with the cleaning liquid under the state that that nozzle is housed in the nozzle holder.

Claims 3-4,6,8-9,13-15 and 17-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication should be directed to Brenda A. Lamb at telephone number (571) 272-1231. The examiner can normally be reached on Monday and Wednesday thru Friday with alternate Tuesdays off.

Brenda A Lamb
Examiner
Art Unit 1734